



Sample Brief Course Description

Course title	Biomaterials for engineering
Course code	MPHYS 275
College	Engineering
Department / Program	Biomedical Engineering
Year/ Level	3/8
Course Type	A. <input type="checkbox"/> University <input type="checkbox"/> College <input checked="" type="checkbox"/> Department <input type="checkbox"/> Others b. <input checked="" type="checkbox"/> Required <input type="checkbox"/> Elective
Credited Hours	4
Contact Hours	(LT:3, LB:2, TR:0)
Pre-requisites (if any)	---
Co-requisites (if any)	---
Course description	This course gives the idea about material properties used in biological system. This course discusses about cardiac implants, ophthalmic implants, dental implants, polymers and their biocompatibility.
Course Main Objectives	<ul style="list-style-type: none">• To acquaint each student with the field of Material Science and the bio- materials that are used in medical applications or in context with biological systems.• Describe the components of a basic instrumentation system.



Learning Outcomes	Knowledge and Understanding: <ol style="list-style-type: none">1. Describe common use biomaterials such as metals, ceramics polymers and composites and its chemical structure, properties and morphology.2. Identify the concepts and characteristics of materials
	Skills:--- <ol style="list-style-type: none">1. Apply the math, science, and engineering knowledge gained in the course to biomaterial selection and design.2. Explain methods to repair and regenerate injured or lost functional tissue with materials, autologous cells or stem cells.3. Analyze materials based on its strength, flexibility, inertness and its response to biological tissues.4. Provide an oral or written report on a specific subject using the technique.
	Values:--- <ol style="list-style-type: none">1. Work effectively within teams to accomplish certain goals